

depends on the Post Office, which has it in its power to grant prosperity to one route and to withhold it from another. Feeder lines to connect with the overseas services may also have a future, but the routes need careful selection if they are to show a substantial advantage over rail transport. Fortunately, thanks to the late Postmaster-General, Sir Kingsley Wood, our inland mails are now carried by air wherever the aeroplane can show an advantage over rail and steamer, and it would be avaricious to ask for more than that. Even night flying inside the British Isles can hardly alter the situation, though it will have a very important bearing on the time taken over the long Empire routes.

The Technical Outlook

IT is natural at this time of the year to take stock of our present knowledge and to attempt to estimate from that what the immediate future is likely to have in store. The year which has just closed brought a good deal of technical progress, and at present the aeronautical technician is at a very interesting stage in his career. He is faced with many problems and difficulties, but we do not doubt that he will solve them in good time.

The expansion of the R.A.F. has brought with it the task of suddenly accelerated production. Every firm in the country is busy on orders for military aircraft, and it so happens that this demand for quantity production

coincides with one of the periods of fundamental changes in structural design which have occurred from time to time since flying first began.

Some eight or ten years ago the British aircraft industry went through one such period. That was when the Air Ministry intimated to constructors that within a year or two all-metal construction of military aircraft would be required. The firms got to work, and in time each discovered ways and means of forming flat steel strip into corrugated sections which would develop something approaching the full strength of the material. That form of construction has served us well, and will continue to be used in the future. But a newer type, known as metal-clad or "stressed skin" construction, is now forging ahead and demanding the attention of designers. In its way it presents problems even more difficult than the early metal girder, mainly because hitherto it has not been found possible to find a simple way of calculating accurately the strength of a reinforced skin structure. The New Year will see much work done in this direction, and one may hope that in a twelve-month we shall have accumulated a good deal of valuable experience.

New materials may be introduced which will enable the structure weight of aircraft to be cut down, but in military types, at any rate, the percentage of weight over which the designer has any control is getting very small, and too much should not be expected.



PANORAMA OF THE PYRAMIDS. Many aerial photographs of the Pyramids have been taken and published, but there is novelty in the extensive view shown in the above picture, taken from one of the bomber-transport machines of No. 216 (B.T.) Squadron, which is stationed at Heliopolis. The whole array of Pyramids is seen, while the arrow points out the location of the Sphinx. The recent excavations round the base of that mysterious monument can be discerned. The considerable town in the neighbourhood is also interesting.